

PEACH TREE, 'BURPEACHTWENTY'

BACKGROUND OF THE NEW VARIETY

[0001] The present invention relates to a new, novel and distinct variety of peach tree, *Prunus persica*, which has been denominated varietally as 'Burpeachtwenty'.

ORIGIN

[0002] The present variety of peach tree resulted from an on-going program of fruit and nut tree breeding. The purpose of this program is to improve the commercial quality of deciduous fruit and nut varieties, and rootstocks, by creating and releasing promising selections of *prunus*, *malus* and *regia* species. To this end we make both controlled and hybrid cross pollinations each year in order to produce seedling populations from which improved progenies are evaluated and selected.

[0003] The seedling, 'Burpeachtwenty' was originated by us from a population of seedlings grown in our experimental orchards located near Fowler, California. The seedlings, grown on their own roots, were the result of a controlled cross of the yellow-fleshed freestone peach tree 'A48-70' (nonpatented), which was used as the seed parent, and an un-named, mid-season ripening, white-fleshed, freestone nectarine tree, of unknown parentage (unpatented), which was used as the pollen parent. One seedling which is the present variety, exhibited especially desirable characteristics and was designated as 'C11.092'. This seedling was marked for subsequent observation. After the 1996 fruiting season, the new variety of peach tree was selected for advanced evaluation and repropagation.

ASEXUAL REPRODUCTION

[004] Asexual reproduction of this new and distinct variety of peach tree was accomplished by budding the new peach tree to 'Nemaguard' Rootstock (non-patented). This was performed by us in our experimental orchard which is located near Fowler, California. Subsequent evaluations have shown those asexual reproductions run true to the original tree. All characteristics of the original tree, and its fruit, were established and appear to be transmitted through succeeding asexual propagations.

SUMMARY OF THE VARIETY

[0005] 'Burpeachtwenty' is a new and distinct variety of peach tree, which is considered of large size, and which has vigorous growth. This new peach tree is also a regular and productive bearer of relatively large, firm, yellow fleshed, freestone fruit which have good flavor and eating qualities. This new tree has a medium chilling requirement of approximately 700 hours, and further produces relatively uniformly sized fruit throughout the tree. In addition to the foregoing, the fruit of the new tree also appears to have good handling and shipping qualities. The 'Burpeachtwenty' peach tree bears fruit which are ripe for commercial harvesting and shipment on approximately August 9 to August 16 under the ecological conditions prevailing in the San Joaquin Valley of central California. In relative comparison with the freestone peach tree 'A48-70', which is the seed parent, the present new variety of peach tree bears fruit which ripen 10 or more days later at the same geographical location.

BRIEF DESCRIPTION OF THE DRAWING

[0006] The accompanying drawing, which is provided, is a color photograph of the new present variety. The photograph depicts two whole mature fruit, and one mature fruit dissected substantially in the equatorial plane, and which reveals the flesh and the stone characteristics thereof. The external coloration of the fruit as shown is sufficiently matured for harvesting and shipment. Additionally, the photograph displays a sample vegetative shoot bearing typical leaves, and a typical stone, with the flesh removed. The colors in this photograph are as nearly true as is reasonably possible in a color representation of this type. Due to chemical development, processing and printing, the leaves and fruit depicted in these photographs may or may not be accurate when compared to the actual specimen. For this reason, future color references should be made to the color plates (Royal Horticultural Society) and descriptions provided hereinafter.

DETAILED DESCRIPTION

[0007] Referring more specifically to the pomological details of this new and distinct variety of peach tree, the following has been observed during the seventh fruiting season under the ecological conditions prevailing at orchards which are located near the town of Fowler, county of Fresno, state of California. All major color code designations are by reference to the RHS Colour Chart (Fourth Edition) provided by The Royal Horticultural Society of Great Britain. Common color names are also occasionally used.

TREE

[0008] Size. -- Generally. -- Considered medium-large as compared to other common commercial peach cultivars ripening in the late season of maturity. The tree of the present variety was pruned to a height of approximately 315.0 cm to about 320.0 cm at maturity.

[0009] Vigor. -- Considered moderately vigorous. The present peach tree variety grew from about 130.0 cm to about 145.0 cm in height during the first growing season. The new variety was pruned to a height of approximately 124.0 cm in the first dormant season and primary scaffolds were then selected for desired tree structure.

[0010] Productivity. -- Productive. Fruit set varies from 1.5 to several times more than the desired crop load. The fruit set is spaced by thinning to develop the remaining fruit into desired market size fruit. The number of the fruit set varies with prevailing climatic conditions, and cultural practices employed during the bloom period and is therefore not distinctive of the variety.

[0011] Bearer. -- Regular. Fruit set has been heavy during the years of observation and thinning was necessary during the past 7 years.

[0012] Form. -- Upright, and pruned to a vase shape.

[0013] Density. -- Considered medium dense. It has been discovered that pruning the branches from the center of the tree to obtain a resulting vase shape allows for air movement and appropriate amounts of sunlight to enhance fruit color and renewal of fruiting wood throughout the tree.

[0014] Hardiness. -- The present tree was grown and evaluated in USDA Hardiness Zone 9. Winter chilling requirements of the new tree are approximately 700

hours below 7.0 degrees C. The variety appears to be hardy under typical Central San Joaquin Valley conditions.

TRUNK

[0015] Diameter. -- Approximately 15.0 cm in diameter when measured at a distance of approximately 15.24 cm above the soil level. The measurement was taken at the end of the seventh growing season.

[0016] Bark Texture. -- Considered moderately rough, with numerous folds of papery scarfskin being present.

[0017] Lenticels. -- Numerous flat, oval lenticels are present. The lenticels range in size in size from approximately 3.0 to about 5.0 millimeters in width, and from 1.0 to about 2.0 millimeters in height.

[0018] Lenticel Color. -- Considered an orange brown, (RHS Greyed-Orange Group N172 B).

[0019] Bark Coloration. -- Variable, but it is generally considered to be a medium grey-brown, (RHS Greyed-Orange Group 166 B).

BRANCHES

[0020] Size. -- Considered medium for the variety.

[0021] Diameter. -- Average as compared to other peach varieties. The branches have a diameter of about 9.2 centimeters when measured during the seventh year after grafting.

[0022] Surface Texture. -- Average, and appearing furrowed on wood which is several years old.

[0023] Crotch Angles. -- Primary branches are considered variable and are between about 44 to 50 degrees when measured from the horizontal axis. This particular characteristic is not considered distinctive of the variety, however.

[0024] Current Season Shoots. -- Surface texture -- Substantially glabrous.

[0025] Internode Length. -- Approximately 2.3 to about 2.5 cm.

[0026] Color of Mature Branches. -- Medium brown, (RHS Greyed-Orange 166 C).

[0027] Current Seasons Shoots. -- Color. -- Light green, (RHS Green Group 147 C). The color of new shoot tips is considered a bright and shiny green (RHS Yellow-Green Group 143 B).

LEAVES

[0028] Size. -- Considered medium large for the species. Leaf measurements have been taken from vigorous, upright, current-season growth at approximately mid-shoot.

[0029] Leaf Length -- Approximately 162.0 to about 172.0 millimeters.

[0030] Leaf width -- Approximately 44.0 to about 47.0 millimeters.

[0031] Leaf Base Shape. -- Slightly oblique relative to the leaf longitudinal axis.

[0032] Leaf Form. -- Lancelolate.

[0033] Leaf Tip Form. -- Acuminate.

[0034] Leaf Color. -- Upper Leaf Surface -- Dark green, (approximately RHS Yellow-Green Group 147 A).

[0035] Leaf Texture. -- Glabrous.

[0036] Leaf Color. -- Lower Surface -- Medium green, (RHS Yellow-Green Group 148 B).

[0037] Leaf Venation. -- Pinnately veined.

[0038] Mid-Vein. -- Color. -- Light yellow green, (RHS Yellow-Green Group 148 B).

[0039] Leaf Margins. -- Slightly undulating.

Form. -- Considered crenate. Occasionally doubly so.

Uniformity. -- Considered generally uniform.

[0040] Leaf Petioles. --

Size. -- Considered medium long.

Length. -- About 9.0 to about 13.0 mm.

Diameter. -- About 1.5 to about 2.0 mm.

Color. -- Pale green, (RHS Yellow-Green Group 145 B).

[0041] Leaf Glands. --

Size. -- Considered medium small.

Approximately 1.0 mm in length, and about 1.0 mm in height.

Number. -- Generally one gland per margin side. Occasionally two glands per margin side.

Type. -- Globose.

Color. -- Considered a dark tan (RHS Grey-Brown Group 199 B).

[0042] Leaf Stipules. --

Size. -- Medium large for the variety.

Number. -- Typically 2 per leaf bud and up to 6 per shoot tip.

Form. -- Lanceolate in form and having a serrated margin.

Color. -- Green, (RHS Yellow-Green Group 144 A) when young, but graduating to a brown color, (RHS Greyed-Orange group 166 B) with advancing senescence. The stipules are considered to be early deciduous.

FLOWERS

[0043] Flower Buds. -- Generally -- The floral buds, depending on the stage of development, are approximately 7.0 millimeters wide; about 11.0 millimeters long; conic in form; and slightly appressed relative to the bearing shoot.

[0044] Flower Buds. -- Color -- This characteristic is dependent upon the proximity to bloom. The bud scales are deep purple, (approximately RHS Greyed-Purple Group N186 C). The buds are considered hardy under typical central San Joaquin Valley climatic conditions.

[0045] Hardiness. -- No winter injury has been noted during the last several years of evaluation in the central San Joaquin Valley. The current variety has not been intentionally subjected to drought or heat stress, and therefore this information is not available.

[0046] Date of First Bloom. -- March 2, 2002.

[0047] Blooming Time. -- Considered mid-season in relative comparison to other commercial peach cultivars grown in the central San Joaquin Valley. The date of full

bloom was observed on March 9, 2002. The date of bloom varies slightly with climatic conditions and cultural practices.

[0048] Duration of Bloom. -- Approximately 11 days. This characteristic varies slightly with the prevailing climatic conditions.

[0049] Flower Type. -- The variety is considered to have a showy type flower.

[0050] Flower Size. -- Flower diameter at full bloom is approximately 34.0 to about 39.0 millimeters.

[0051] Bloom Quantity. -- Considered abundant.

[0052] Flower Bud Frequency. -- Normally 1 to 2 flower buds appear per node.

[0053] Petal Size. -- Generally -- Considered medium for the species.

Length. -- Approximately 16.0 to about 19.0 millimeters.

Width. -- Approximately 15.0 to about 18.0 millimeters.

[0054] Petal Form. -- Considered rotund.

[0055] Petal Count. -- Nearly always 5.

[0056] Petal Texture. -- Glabrous.

[0057] Petal Color. -- Light pink, (RHS Red-Purple Group 65 C) to a medium pink, (RHS Red-Purple Group 65 B).

[0058] Fragrance. -- Slight.

[0059] Petal Claw. --

Form. -- The claw is considered generally ovoid and has a medium size when compared to other varieties.

Length. -- Approximately 7.0 to about 9.0 millimeters.

Width. -- Approximately 8.0 to about 10.0 millimeters.

- [0060] Petal Margins. -- Generally considered variable, from nearly smooth to slightly ruffled, to moderately undulate.
- [0061] Petal Apex. -- Generally -- The petal apices generally appear slightly grooved at the tip.
- [0062] Flower Pedicel. --
Length. -- Considered medium-long, and having an average length of approximately 4.0 to about 5.0 millimeters.
Diameter. -- Considered average, approximately 3.0 millimeters.
Color. -- A medium brown, (RHS Grey-Brown Group N199 B).
- [0063] Floral Nectaries. --
Color. -- A dull orange, (RHS Greyed-Orange Group N167 B).
- [0064] Calyx. --
Surface Texture. -- Generally glabrous.
Color. -- A dull red, (approximately RHS Greyed-Purple Group 181 A).
- [0065] Sepals. --
Surface Texture. -- The surface has a short, fine pubescent texture.
Size. -- Average, and ovate in form.
Color. -- A dull red, (approximately RHS Greyed-Red Group 181 B).
- [0066] Anthers. --
Generally. -- Average in length.
Color. -- Red to reddish-purple dorsally, (approximately RHS Greyed-Purple Group 183 C).
- [0067] Pollen Production. -- Pollen is abundant, and has a yellow color, (approximately RHS Yellow-Orange Group 17 B).

- [0068] Filaments. --
- Size. -- Length is variable, approximately 13.0 to about 15.0 millimeters long.
- Color. -- Considered light pink, (RHS Red Group 55 B).
- [0069] Pistil. --
- Number. -- Usually 1, rarely 2.
- Generally. -- Average in size.
- Length. -- Approximately 14.0 to about 16.0 millimeters including the ovary.
- Color. -- Considered a very pale green, (approximately RHS Yellow-Green Group 150 C).
- Surface Texture. -- The variety has a long pubescent pistil.

FRUIT

- [0070] Maturity when described. -- Firm ripe condition (shipping ripe).
- [0071] Date of first picking. -- August 9th, 2003. Date of last picking. -- August 18, 2003. The date of harvest varies slightly with the prevailing climatic conditions.
- [0072] Size. -- Generally -- Considered large, and uniform.
- [0073] Average Cheek Diameter. -- Approximately 73.0 to about 79.0 millimeters.
- [0074] Average Axial Diameter. -- Approximately 70.0 to about 75.0 millimeters.
- [0075] Typical Weight. -- Approximately 267.0 grams. This characteristic is highly dependent upon the prevailing cultural practices, and therefore is not particularly distinctive of the variety.

[0076] Fruit Form. -- Generally -- Considerably oblate. The fruit is generally uniform in symmetry.

[0077] Fruit Suture. -- Very shallow to almost non-indented, extending from the base to the apex. Slight grooving is generally observed toward the apex. No apparent callusing or stitching exists along the suture line.

[0078] Suture. -- Color -- Generally blushed to the same degree as the skin, (approximately RHS Red Group 42 B).

[0079] Ventral Surface. -- Form -- Only slightly indented.

[0080] Apex. -- Rounded.

[0081] Base. -- Generally retuse.

[0082] Stem Cavity. -- Generally rounded and uniform. Average depth of the stem cavity is about 7.0 mm. Average width of the stem cavity is about 13 mm.

[0083] Fruit Skin. --

Thickness. -- Considered medium in thickness, and tenacious to the flesh.

Texture. -- Short, fine and pubescent. The pubescence is moderately abundant.

Taste. -- Non-astringent.

Tendency to crack. -- None observed.

[0084] Color. --

Blush Color. -- This blush color is generally a red blush on a majority of the skin of the fruit (approximately RHS Red Group 42 A), and generally is more present on the basal portions of the fruit. The blush covers approximately 75-85% of the fruit skin surface. The percentage of the blush on the fruit skin surface can vary and is

generally dependant upon the prevailing conditions under which the fruit was grown.

Ground Color. -- Yellow, (approximately RHS Yellow Group 11 B).

[0085] Fruit Stem. -- Medium in length, approximately 6.0 to about 7.0 millimeters.

Diameter. -- Approximately 2.0 to about 3.0 millimeters.

Color. -- Pale yellow-green, (approximately RHS Yellow-Green Group 144 C).

[0086] Flesh --

Ripens. -- Evenly.

Texture. -- Firm, juicy and dense. Considered firm melting.

Fibers. -- Few, small, and tender ones are found.

Aroma. -- Very slight.

Eating Quality. -- Considered very good.

Flavor. -- Considered sweet and mildly acidic. The flavor is considered both pleasant and balanced.

Juice. -- Moderate.

Brix. -- About 12.5 degrees. This characteristic varies slightly with the number of fruit per tree; prevailing cultural practices; and the surrounding climatic conditions.

Flesh Color. -- Pale yellow-orange, (approximately RHS Yellow-Orange Group 19 B).

STONE

[0087] Type. -- Freestone.

[0088]. Size. -- Considered medium for the variety. The stone size varies significantly depending on tree vigor, crop load and growing conditions.

[0089]. Length. -- Average, about 25.0 to about 30.0 millimeters.

[0090]. Width. -- Average, about 21.0 to about 24.0 millimeters.

[0091]. Diameter. -- Average, about 14.0 to about 18.0 millimeters.

[0092]. Form. -- Ovoid.

[0093]. Base. -- The stone is usually rounded to slightly oblique to the ventral side.

[0094]. Apex. -- Shape. -- The stone apex is raised and has a reasonably prominent tip.

[0095]. Stone surface. --

 Surface Texture -- Generally deep furrowing is present across the stone surface. Pitting is less abundant generally compared to the presence of furrowing.

 Ridges. -- Ridges are generally oriented more perpendicularly near the apex of the stone's axis, and toward the base the ridges are generally oriented parallel the stone's axis. The surface texture is generally characterized by more prominent ridges along the ventral edges.

 Ventral Edge. -- Width -- Considered medium, and having a dimension of approximately 3.0 to about 4.0 millimeters when measured at the mid-suture.

 Dorsal Edge. -- Shape. -- Full, lightly grooved, and is reasonably prominent.

[0096]. Stone Color. -- The color of the dry stone is generally considered a reddish brown, (approximately Greyed- Orange Group RHS 175 A).

- [0097]. Tendency to split. -- Splitting has rarely been noted.
- [0098]. Kernel:
- Size. -- Kernel is considered medium-large.
- Form. -- Considered ovoid.
- Pellicle. -- Pubescent.
- Color. -- (RHS Greyed-Orange Group 167 A).
- [0099]. Use. -- The subject variety 'Burpeachtwenty' is considered to be a peach tree of the late season maturity, and which produces fruit which are considered firm, attractively colored, and which are useful for both local and long distance shipping.
- [0100] Keeping Quality. -- Excellent. Fruit has stored well up to 25 days after harvest at 1.0 degree Celsius.
- [0101] Shipping Quality. -- Good. The fruit of the new peach variety showed minimal bruising of flesh or skin damage after being subjected to normal harvest and packing procedures.
- [0102] Resistance to Insects and Disease. -- No particular susceptibilities were noted. The present variety has not been tested to expose or detect any susceptibilities or resistances to any known plant and/or fruit diseases.
- [0103] Although the new variety of peach tree possesses the described characteristics when grown under the ecological conditions prevailing near Fowler, California, in the Central part of the San Joaquin Valley of California, it should be understood that variations of the usual magnitude and characteristics incident to changes in growing conditions, fertilization, pruning, pest control and horticultural management are to be expected.